

## **ABSTRACT**

Service providers can reduce multiple overlay networks by creating multiple logical service networks (LSNs) on the same physical or optical fiber network. The LSNs are established by the service provider and can be characterized by traffic type,  
5 bandwidth, delay, hop count, guaranteed information rates and/or restoration priorities. Once established, the LSNs allow the service provider to deliver a variety of services to customers depending on customer's traffic specifications. Different traffic specifications are serviced on different LSNs, depending on each LSN's characteristics. Such LSNs, once built within a broadband network, can be customized  
10 and sold to multiple customers.

15

20

25